







#### The research centre and the authors



The Geneva UN Charter Centre of Excellence on sustainable finance for infrastructure and smart cities (ExSUF) has been set up by UNECE and LIUC – Cattaneo University in 2021 to advance sustainable finance for infrastructure and smart cities, in order to accelerate action to achieve the Sustainable Development Goals (SDGs), in particular SDG 11 on sustainable cities and human settlements.

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The report uses our proprietary database<sup>(1)</sup> focused on **infrastructure funds**.

These players are defined at the European level as "an operator that acquires controlling interests in infrastructure, often related to transportation and communication systems, water and energy facilities, and public institutions, including schools and nursing homes" (Invest Europe).

The database is based entirely on public sources, such as the classifications collected by national trade associations or other databases, integrated by the analysis of each operator's web portal and any publicly available documents.



#### Methodology (2/3)



#### The database detects:

- I. infrastructure operators headquartered in Italy, France, the United Kingdom, Spain and Germany, further divided into domestic and pan-European operators depending on whether they operate exclusively in their headquarters countries or also in other countries.
- II. infrastructure operators headquartered in other countries but actively investing within the EU (i.e. holding in their portfolio assets based in these countries).
- III. operator typology, including the interest in Public-Private Partnership (PPP) transactions when it comes to investment strategy, asset class strategy, median Asset Under Management (AUM), investment technical form and characteristics (information available through trade associations, databases or declared directly by the operator on its web portal).
- IV. number of active portfolio investments at the analysis date, investment industries<sup>(1)</sup> and geographical markets they cover.
- (1) Defined according to the classifications of EDC (European database for the collection of data on private capital promoted by Invest Europe and the main European trade associations).



#### Methodology (3/3)



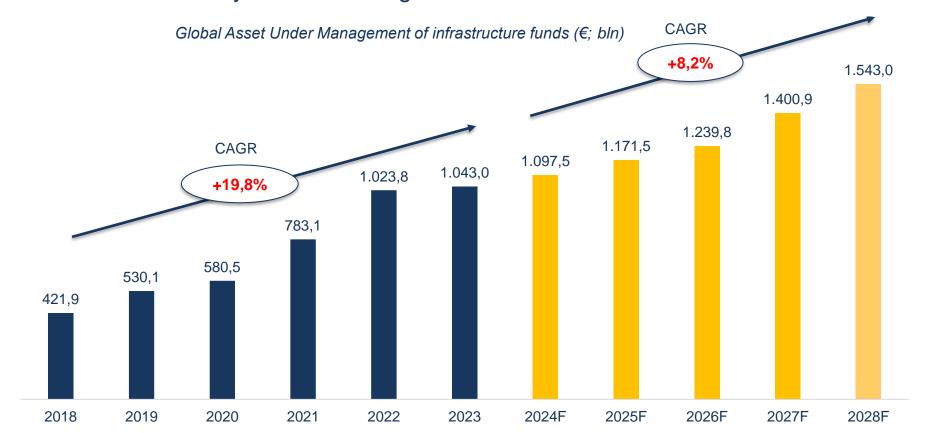
The report is at its third edition and has been constantly updated according to publicly available information. Thereafter the evolution of the database is specified as follows:

# identified GPs	149	189	212
# of total investments	2.946	3.691	3.869
	2021	2022	2023



### Steady growth of asset under management over the last years and strong forecast for the future

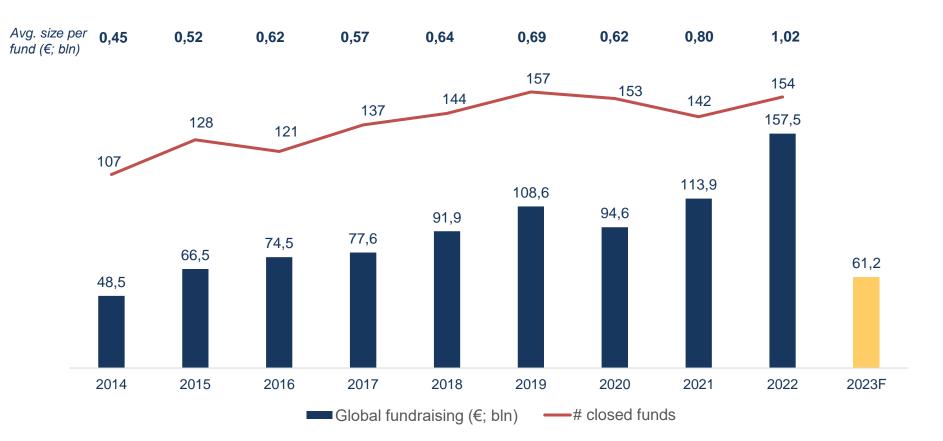






### Fundraising slowed in 2023 like in other private markets, but it is expected to rise again from 2024

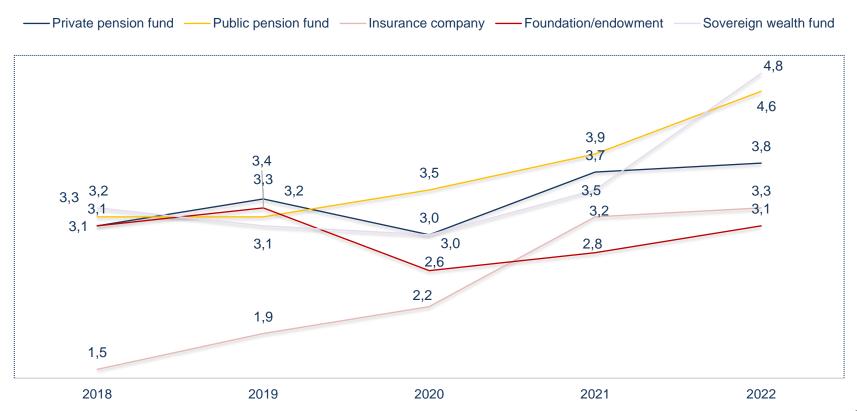






# Growing exposure of Limited Partners (LPs) in the asset class contributed to the slowdown in fundraising







### Driven by the energy and digital transitions, the infrastructure market is expected to experience a strong growth



- The market is characterized by a few large players of significant size, who have consolidated expertise and superior fundraising capabilities (9 GPs are in the top 10 list for capital raised both in 2022 and 2023)
- The industry is showing a wave of M&A deals realized by **traditional Private Equity fund managers**, who are acquiring specialized infrastructure platforms, to consolidate and complement their current strategies



BlackRock.

GLOBAL INFRASTRUCTURE PARTNERS



## At a global level, largest General Partners (GPs) are based in North America and Australia



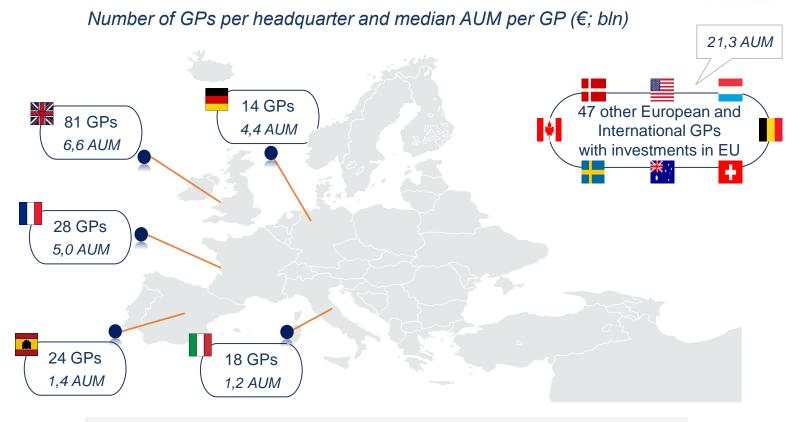
GP	AUM per infrastructure (€; bln)	Headquarter
Brookfield	177	*
MACQUARIE (1)	170	*
BlackRock (2)	139	
DIGITALBRIDGE	74	
IFM Investors	69	* ,
STONEPE AK	57	
KKR	45	
EQT	43	
Blackstone	38	
I SQUARED CAPITAL	35	
ANTIN	31	
ARDIAN	29	
endgepoint ECP (2)	19	
CVC CAPITAL DIF	16	
Copperbogen beforebreden Portners	6	==

<sup>(1)</sup> Estimated AUM for only infrastructure and real asset investments (2) AUM for infrastructure of the combined entities



## 212 GPs hold at least one infrastructure investment in Europe at the end of 2023



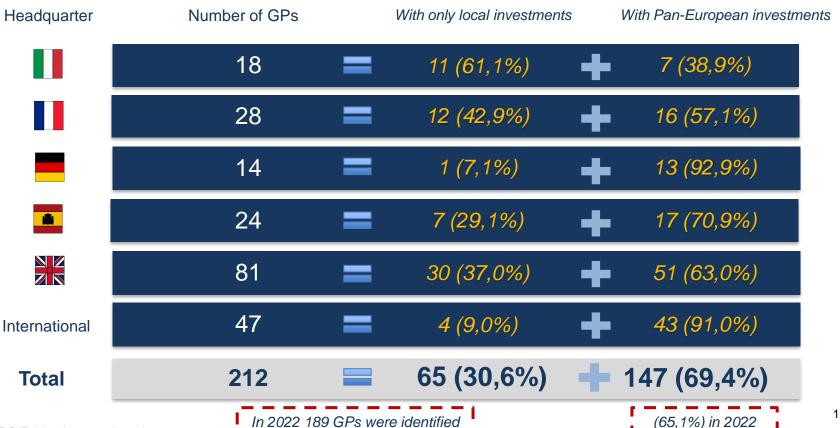


Italian GPs show lower median AUM compared to their peers in other European countries



### Growing number of GPs with at least one investment abroad with respect to their headquarter country...



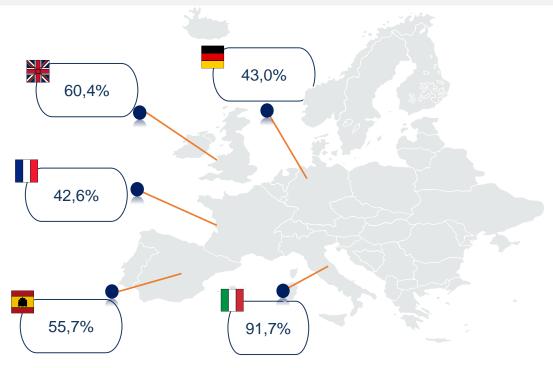




### ...however, overall Italian GPs invest almost entirely within the domestic border, with foreign investments being residual



Examining the portfolio of the GPs based in the five major European markets, it appears that Italian players are less internationalized in their investment strategies, as 90% of the assets in their portfolio are domestic, whereas foreign GPs hold on average almost 50% of their assets abroad





### The market is almost perfectly divided between specialized investors and those performing a multi-asset strategy



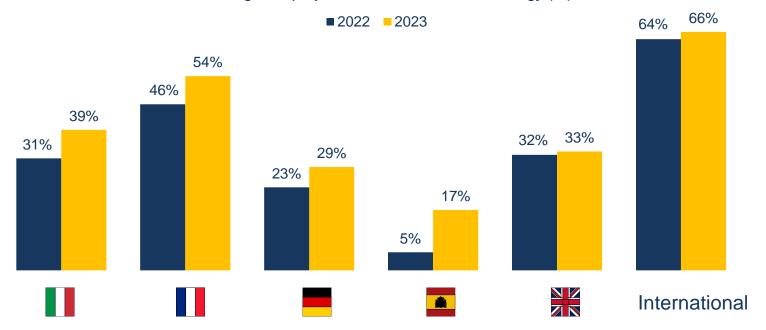
Headquarter	Number of GPs		Of which multi-asset*		Of which specialist in infra
	18	=	8 (44,4%)	+	10 (55,6%)
	28	=	21 (75,0%)	+	7 (25,0%)
	14	=	7 (50,0%)	+	7 (50,0%)
	24	=	13 (54,2%)	+	11 (45,8%)
	81	=	41 (50,6%)	+	40 (49,4%)
International	47	=	21 (44,7%)	+	26 (55,3%)
Total	212		111 (52,4%)	+	101 (47,6%)



## The propensity to invest in PPP (Public-Private Partnership) projects is increasing



GPs including PPP projects in their investment strategy (%)

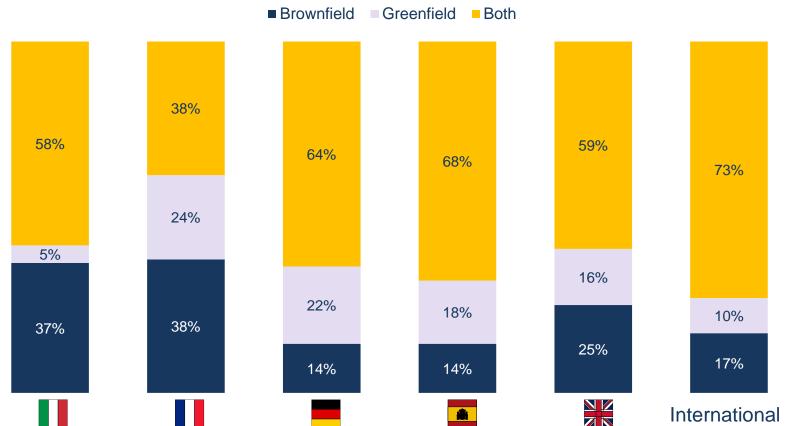


The demand for funding by public entities to finance initiatives such as decarbonization, digital infrastructure expansion, the re-shoring of supply chains creates openings for private investors who are increasingly including in their investment strategy PPP projects



## GPs are willing to deploy funds in greenfield investments, looking for higher returns

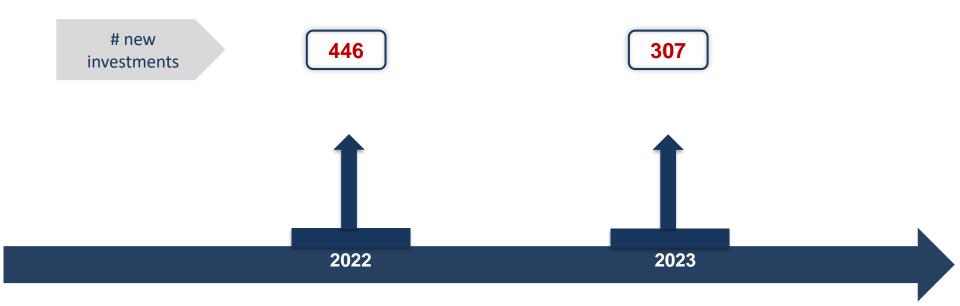






## Higher interest rates impacted on infrastructure asset values and deal activity, with 307 new investments in 2023 (-30%)







#### Selected transactions in 2023



TARGET	SECTOR	ACQUIRER	DIVESTOR	SIZE (€; bln)
Greenvolt	Renewable Energy	KKR Financial Holdings LLC	ACTIUM CAPITAL	1,8
**************************************	Renewable Energy	ARDIAN	3i Infrastructure plc	1,7
A arriva	Transport	i squared capital	DB	1,7
nationalgrid (UK gas transmission and metering business)	Conventional Energy	MACQUARIE	national <b>grid</b>	0,9
plenitude	Renewable Energy	ENERGY INFRASTRUCTURE PARTNERS	N/D	0,6



## The total portfolio of infrastructure GPs rose to more than 3.800 assets in 2023, compared to less than 3.700 in 2022



# investments in portfolio of all 212 GPs as of December 2023 | 3.869 |

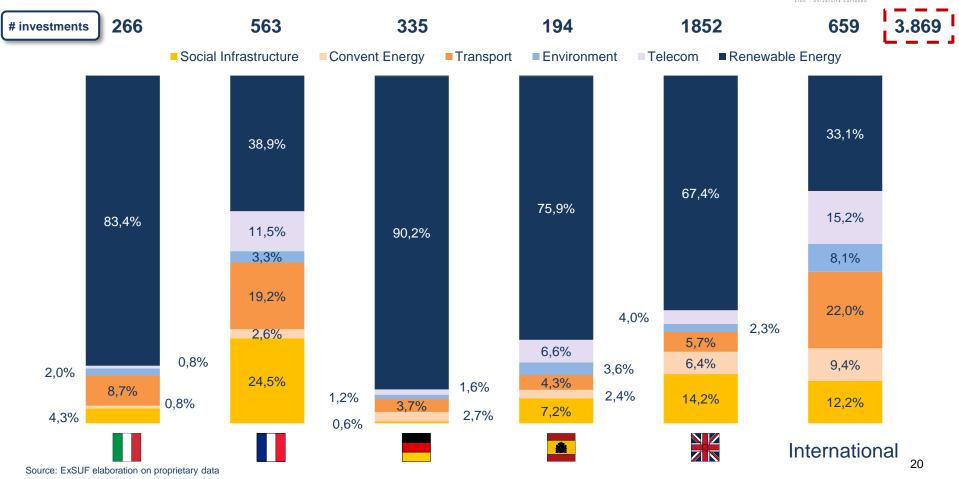


# investments per GP headquarter	266	563	335	194	1.852	659
# GP per headquarter	18	28	14	24	81	47
# avg. investments per GP	15	20	24	8	23	14
		П				International



### Investments in **renewable energy** always lead the field. More diversification for International and French GPs







International

Source: ExSUF elaboration on proprietary data

# GPs make almost half of their investments inside of their

91,7

42,6

43,0

55,7

60,4

41,1





(%)

8,0

20,1

16,7

23,4

18,5

40,7

21

LIUC Università Cattaneo	headquarters country, besides international players				
	Assets in portfolio	Headquarter country	Europe		

Università Cattaneo	headquarters country, besides international players				
	Assets in portfolio	Headquarter country	Europe		

266

563

335

194

1852

659

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Assets in portfolio	Headquarter country	Europe		
(#)	(%)	(%)		

 $(\pi)$ 

Worldwide

7,5

37,3

40,3

20,8

21,2

18,2